Bibliography

Topic Area: Early Childhood Education

Alaska Natives

Bradley, C., & Reyes, M. (2000). *Alaska Native Elders' Contribution to Education: The Fairbanks AISES Science Camp.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED454001).

The Fairbanks American Indian Science and Engineering Society (AISES) Science Camp was designed for Alaska Native middle school students from 11 school districts. The camp enables students to learn from Native Elders while completing hands-on science projects; stimulates interest and confidence in mathematics, science, and engineering among Alaska Native students; provides a curriculum that integrates Alaska Native knowledge and values with Western mathematics and science; and encourages parents to support the academic pursuits of their children. Secondary camp objectives relate to students' cultural and spiritual development and the creation of a network of students interested in science education in Alaska. The academic component of the camp required students to complete a science project following the scientific method and specific guidelines for writing up the report. The cultural component required students to interact with Elders daily, consult and interview Elders about their science projects, complete various traditional projects under guidance of Elders, and learn traditional social rules of behavior. Students found that in most cases the knowledge and experience of the Elders complemented, confirmed, and surpassed the quality and depth of information found in either the library or Internet. The grand prize winners in the Kodiak and Fairbanks AISES science fairs, which are open to all rural, middle school students in Alaska, were former participants of these science camps.

Buly, M. (2005). Leaving No American Indian/Alaska Native Behind: Identifying Reading Strengths and Needs. *Journal of American Indian Education 44*(1) 28-52.

American Indian/Alaska Native (AI/AN) students are often labeled as struggling readers based on the results of large-scale standardized tests yet little empirical data about specific strengths and needs exists. In the present study the authors looked beyond high-stakes assessment to highlight reading strengths and needs for a group of fourth grade American Indian students in order to provide specific information to guide instruction. A description of skills considered basic to proficient reading is followed by an explanation of the assessment methods used. The majority of the students demonstrated fairly strong skills in phonemic awareness, vocabulary when assessed orally, and basic word identification

(phonics). Reading with a rate appropriate to purpose and comprehension strategies were identified as instructional needs. Explicit instruction in the identified areas is suggested as vital to the future success of these students and may provide a starting point for the identification and instruction of other AI/AN students with similar needs.

First Alaskans Foundation (2001). *Alaska Native Education Study: A Statewide Study of Alaska Native Values and Opinions Regarding Education in Alaska*.. Retrieved May 26, 2005 from http://www.ankn.uaf.edu/old/summit/McDowell/.

Alaska Natives face many challenges in education performance, attainments, and opportunities. In an effort to understand Alaska Natives' perspective on these issues, the First Alaskans Foundation embarked on an eight-month research project of Alaska Natives' attitudes and values toward education. The multi-phase project included secondary research, key informant interviews, a household survey, and focus group discussions. Themes echoed throughout the research include barriers to education, the role of family and community, the role of language and culture, education in urban and rural settings, and solutions for improving education for Alaska Native children.

Fox, S. (2001). *American Indian / Alaska Native Education and Standards-Based Reform.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED459039).

This digest summarizes potential benefits of standards-based reform and areas of concern for schools serving American Indian and Alaska Native students. Content standards may benefit Indian education by creating a more common curriculum, providing a focus for improving teaching and learning, and promoting a more holistic, active-learning sort of pedagogy. Various states have sought input from Indian educators about the appropriateness of standards for Indian students or have allowed development of culturally relevant local standards. Nevertheless, the potential benefits of standards will not be realized if the instruction that Indian students receive is inadequate or if the standards are irrelevant to Indian students. Standards-based reform emphasizes testing what is taught. States that use performance-based assessment and multiple measures can avoid or reduce cultural bias in testing. Unfortunately, most states continue to rely on standardized, norm-referenced, or multiple-choice tests, which are thought to be biased. Basing decisions about promotion or graduation on inadequate testing measures may prove extremely harmful to Indian students. Holding schools accountable for students' learning is a plus for Indian education, but students in ineffective schools may also suffer. One recommendation is to base accountability on student and school gains rather than on comparisons with other students and schools. Federal and state governments play a crucial role in helping low-performing schools meet standards.

Flanagan, K., & Park, J. (2005). American Indian and Alaska Native Children: Findings from the Base Year of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) (NCES 2005-116). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved August 11, 2005, from http://nces.ed.gov/pubs2005/2005116.pdf.

The National Center for Education Statistics within the Institute of Education Sciences in collaboration with several health, education and human service agencies is conducting a new study, the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B). The ECLS-B selected a national sample of children, born in the year 2001, to follow from birth through first grade. This E.D. TAB focuses on the American Indian and Alaska Native children born in the United States in 2001, at the request of the Office of Indian Education in the U.S. Department of Education.

Freeman, C., & Fox, M. (2005). *Status and Trends in the Education of American Indians and Alaska Natives* (NCES 2005-108). U.S. Department of Education, National Center for Education Statistics. Washington, DC: US Government Printing Office. Retrieved August 30, 2005 from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005108.

This report examines both the current conditions and recent trends in the education of American Indians and Alaska Natives using statistical measures. It presents a selection of indicators that illustrate the educational achievement and attainment of American Indians and Alaska Natives. Over the past 20 years, American Indians/Alaska Natives have made gains in key education areas, such as increased educational attainment. However, gaps in academic performance between American Indian/Alaska Native and White students remain.

Head Start Bureau, U.S. Department of Health and Human Services (2003, March). *A Summary of Research and Publications on Early Childhood for American Indian and Alaska Native Children*. Washington, DC: ORC Macro. Retrieved January 5, 2006 from http://www.acf.hhs.gov/programs/opre/hs/aian/reports/aian_summary/aian_sum.pdf.

This report centers on research literature while providing lessons from non-research publications as well. Information is organized in two segments: the first segment summarizes issues and observations from position papers, opinions, experiences, and syntheses; the second segment presents, in the style of an annotated bibliography, information from research studies.

Head Start Bureau, U.S. Department of Health and Human Services (2004, March). *Establishing a Research Agenda for American Indian and Alaska Native Head Start Programs*. Washington, DC: ORC Macro. Retrieved January 5, 2006 from http://www.acf.hhs.gov/programs/opre/hs/aian/reports/aian/aian_rep.pdf.

To support the development and implementation of research within and by tribal communities, the U.S. Department of Health and Human Services awarded a contract to review and explore research needs for American Indian / Alaska Native (AI/AN) Head Start programs. This report summarizes the findings from the initiative and directions for developing scientifically valid information that can be used to address matters of consequence for AI/AN Head Start programs.

Hilberg, S., & Tharp, R. (2002). *Theoretical Perspectives, Research Findings, and Classroom Implications of the Learning Styles of American Indian and Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED468000).

This digest discusses two prominent definitions of learning styles, describes studies that have found differences between the learning styles of American Indian/Alaska Native students and students of other cultural groups, and presents instructional interventions stemming from learning styles research. The research literature on learning styles comes from several disciplines, contributing to the disjointed, inconsistent, and often contradictory information about what learning styles are and how they can be measured. Further, studies tend to be tied to a particular instrument. Researchers differ as to the elements of learning styles and whether they are fixed or malleable. Research based on a variety of theoretical frameworks suggests that American Indian and Alaska Native students show some tendency toward (1) a global, or holistic, style of organizing information; (2) a visual style of mentally representing information in thinking; (3) a preference for a more reflective style in processing information; and (4) a preference for a collaborative approach to task completion. Research supporting each of these points is briefly discussed, followed by studies showing the effects of related instructional strategies on academic achievement and student engagement.

National Institute of Child Health and Human Development (2005). *Improving Academic Performance among American Indian, Alaska Native, & Native Hawaiian Students: Assessment & Identification of Learning & Learning Disabilities*. Washington, DC. Retrieved Januray 9, 2006 from nichd.nih.gov/crmc/cdb/native_american_summary_dec05.pdf.

On March 16-18, 2005, several federal agencies, professional organization, and associations joined forces to hold a national colloquium to address the educational needs of Native American students. This document represents a summary of the presentations and discussions of that gathering. The Blueprint at the end of this document is under discussion and refinement, as additional input is gathered.

Pallascio, R., Allaire, R., Lafortune, L., Mongeau, P. & Laquerre, J. (2002). The Learning of Geometry by the Inuit. In J. Hankes & G. Fast (Eds.), *Changing the Faces of*

Mathematics: Perspectives on Indigenous People of North America (pp. 57-68). Reston, VA: National Council of Teachers of Mathematics.

In a previous study, three of the authors examined the influence of children's spatial environments ontheir developments of spatial skills in a situation focusing on the manipulation of small objects and their two-dimensional representations. These observations suggested that Intuit children and children from an urban environment, inhabiting as they do dissimilar spatial environments, differed from each other in their perception and representation of the geometric properties of different objects. They differed as well in spatial skills. The authors were able to show that the spatial environment influences the development of spatial relationships. Results such as these have prompted the authors to consider the cultural context in which spatial skills develop. This chapter explores the spatial and geometric skills of young Intuits, the phenomenon of mathematical acculturation, the objectives of the research project thus conducted, the methodology employed, a synthesis of the observations made, and the main recommendations stemming from the entire research process.

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian education Study, Part 1: The Performance of American Indian and Alaska Native Fourth-and-Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Retrieved July 25, 2006 from http://nces.ed.gov/nationsreportcard//pdf/studies/2006463.pdf.

This report presents the performance results of American Indian/Alaska Native students at grades 4 and 8 on the 2005 National Assessment of Educational Progress in reading and mathematics for the nation, for regions, and for selected states. The national and regional samples include students from both public and nonpublic schools (i.e., Bureau of Indian Affairs [BIA], Department of Defense Education Activity [DoDEA], and private schools). States with relatively large populations of American Indian/Alaska Native students were selected for this study. The states whose results are included in this report (Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, and South Dakota) are the seven states with the largest proportions of American Indians and Alaska Natives as a percentage of the state's total population. The state samples included only public and BIA schools. Assessment results are described in terms of students' average scores on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: Basic, Proficient, and Advanced. National scores at selected percentiles on the scale (indicating the percentage of students whose scores fell at or below a particular point) are also discussed. This report also provides results for groups of students defined by various background characteristics: race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, and student-reported level of parental education (grade 8 only). The comparisons are generally between the performance results of American Indian/Alaska Native students and those of students who are neither

American Indian nor Alaska Native. In the section discussing state results, the comparisons are between the performance results of American Indian/Alaska Native students within each selected state and those of American Indian/Alaska Native students in each of the other selected states, and to the performance results of the national sample of American Indian/Alaska Native students. At the state level, the sample design did not permit comparisons to students who are not American Indian or Alaska Native. The report also includes sample assessment questions and examples of student responses. Appendices include information on national and state samples, school and student participation rates, participation and accommodation of students with disabilities and English language learners, and student group percentages.

Reyhner, J. (2001). *Teaching Reading to American Indian/Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED459972).

This digest summarizes ways to help young American Indian and Alaska Native children become fluent readers. There are numerous reading intervention programs, each with its own set of claims and counter-claims. Phonics approaches are designed for standard English speakers, and students with limited English abilities end up parroting what they read without comprehension. A major criticism of basal readers and research-based reading programs is that the material is chosen for a generic American audience with few, if any, stories that relate to Indian culture. The language experience approach uses words from students' oral vocabularies, familiar stories, community oral histories, and predictable books to teach reading lessons. The whole-language approach is compatible with Native beliefs and traditional teaching methods, but its lack of structure can overwhelm teachers. Balanced approaches draw on both phonics and whole-language methods. In balanced approaches, teachers can supplement basal readers with community and tribal reading materials. Using materials written in students' Native language improves reading skills in the Native language and English, and attitudes towards school. Parents can help their children by reading to them. Teachers should use reading materials that relate to children's lives and provide opportunities to learn new words and practice oral language in English and in their Native language.

Tippeconnic, J. (2003). *The Use of Academic Achievement Tests and Measurements with American Indian and Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED482322).

This digest focuses on academic testing and American Indian and Alaska Native (AI/AN) students. Ideally, test results should be used to improve student learning. Proponents of high-stakes testing say it is needed to measure student achievement and school quality and to hold students and teachers accountable. High-stakes testing is also used to publicly compare schools and districts; to determine

entrance into particular programs, schools, or colleges; as criteria for promotion or graduation; and to make decisions about resource allocation. Opponents of testing argue that current testing programs do not provide valid or reliable information, especially for low-income and minority students, and have unintended, negative consequences. Nationally, AI/AN students have scored well below White and other minority groups of students on standardized tests of reading, language, and mathematics. Testing of AI/AN students has been a concern for years, as AI/AN cultures and languages were long considered obstacles to achievement, and the performance of White students was the benchmark for all. Standardized tests fail to consider the vast diversity of AI/AN languages and cultures, leading to serious issues regarding cultural bias, content comparability, norming of tests, and test validity. Other issues include environmental factors; student physical or emotional health; risk-taking behaviors of youth; and poorly funded, low-quality schools serving AI/AN students. Nine strategies are listed for improving test scores of special populations, including AI/AN students.

Even Start/Head Start

Abt Associates Inc. (1997, February). *National Evaluation of the Even Start Family Literacy Program: Report on Even Start Projects for Indian Tribes and Tribal Organizations Executive Summary*. Cambridge, MA: Author.

This executive summary highlights information from the report on three tribal Even Start projects visited as part of the national evaluation of the Even Start Family Literacy Program that FU Associates, Ltd. and Abt Associates Inc. are conducting for the U.S. Department of Education. The report is intended to provide examples of service delivery models in a subset of tribal projects; generalization about all tribal projects should not be made on the basis of descriptions of only three projects.

Barnett, W., Hustedt, J., Robin, K., & Schulman, K. (2005). *The State of Preschool: 2005 State of Preschool Yearbook*. New Brunswick: Rutgers University, National Institute for Early Educational Research. Retrieved August 18, 2006 from http://nieer.org/yearbook/pdf/yearbook.pdf.

The 2005 *State Preschool Yearbook* is the third in a series of annual reports profiling state-funded prekindergarten programs in the United States. The 2005 *Yearbook* primarily focuses on state-funded prekindergarten during the 2004-2005 school year, and also presents data from 2003-2004. The 2005 *Yearbook* is organized into three major sections. The first section provides a summary of the data, and describes national trends for enrollment in, quality of, and state spending on preschool. The second section presents detailed profiles outlining each state's policies with respect to preschool access, quality standards, and resources for the 2004-2005 program year. The last section of the report contains

appendices, including tables that provide the complete 2003-2004 survey data obtained from every state, as well as Head Start, child care, and U.S. Census data.

Child Care & Early Education Research Connections (2003, September). *Promoting Language and Literacy in Early Childhood Care and Education Settings*. Washington, DC.

This literature review was designed to examine the existing research on promoting language and literacy development in early childhood care and education settings. It provides definitions of emergent literacy, summaries of important synthesis that have already been conducted, an overview of the current policy landscape, and the criteria used to select studies for review.

Clay, C. (1998). *Schooling At-Risk Native American Children: A Journey from Reservation Head Start to Public School Kindergarten*. New York, NY: Garland.

In this book, six in-depth case studies, classroom observation, and interviews with parents and teachers document changes in the social interaction patterns of Native American children between reservation Head Start programs and kindergarten. Early communication between teachers and parents, a more continuous curriculum across classroom settings, and training for parents and teachers in culturally relevant issues are identified as keys to successful mainstream education for at-risk.

Flanagan, K., & Park, J. (2005). American Indian and Alaska Native Children: Findings from the Base Year of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) (NCES 2005-116). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved August 11, 2005, from http://nces.ed.gov/pubs2005/2005116.pdf.

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U.S. Department of Health and Human Services, Administration for Children and Families Child Care Bureau (2005). *Child Care and Development Fund Report of State Plans FY 204-2005. Retrieved July 26, 2005 from* http://www.nccic.org/pubs/stateplan/.

The Child Care and Development Fund (CCDF) provides $4.8 billion in block grants to States, Territories, and Tribes to subsidize the cost of child care for low-income families. The supported services are described in the biennial State Plans summarized in this report. CCDF State Plans for Federal Fiscal Years 2004-2005 indicate that Lead Agencies are working in partnership with multiple Federal, State, Tribal, and local entities, including private sector partners, to administer the program.

U.S. Department of Health and Human Services, Administration for Children and Families (2005, May). *Head Start Impact Study: First Year Findings*. Washington, DC. Retrieved July 25, 2006 from http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/first_yr_finds/first_yr_finds.pdf.

The National Head Start Impact Study has two primary goals. The first is to determine on a national basis how Head Start affects the school readiness of children participating in the program as compared to children not enrolled in Head Start. Does Head Start improve children's cognitive development, general knowledge, approaches to learning, social and emotional development, communication skills, fine and gross motor skills, and physical well-being? In addition, how does Head Start affect the lives of the families of children enrolled in the program? The second goal of the study is to determine under which conditions Head Start works best and for which children. To meet this goal, the

study will examine various factors that could affect the results of the Head Start program. These factors will include differences among children attending Head Start, differences in children's home environments, the different types of Head Start programs available (home or center-based, quality indicators such as staff ratio, curriculum, part- vs. full-day programs, one versus two years exposure), and the availability and quality of other child care and preschool programs in a particular area. The National Head Start Impact Study is a longitudinal study that involves approximately 5,000 - 6,000 three and four year old preschool children across an estimated 75 nationally representative grantee/delegate agencies in communities where there are more eligible children and families than can be served by the program.

Gifted/Special Needs

Baker, S., Gersten, R., & Lee, D. (2002). A Synthesis of Empirical Research on Teaching Mathematics to Low-Achieving Students. *Elementary School Journal 103*(1) 51-73.

The purpose of this study was to synthesize research on the effects of interventions to improve mathematics achievement of students considered low achieving or at risk for failure. Meta-analysis techniques were used to calculate mean effect sizes for 15 studies that met inclusion criteria. Studies were coded according to five categories of mathematics interventions, and effect sizes were examined on a study-by-study basis within each of these categories. Results indicated that different types of interventions led to improvements in the mathematics difficulty, including the following: (a) providing teachers and students with data on student performance; (b) using peers as tutors or instructional guides; (c) providing clear, specific feedback to parents on their children's mathematics success; and (d) using principles of explicit instruction in teaching math concepts and procedures.

Borman, G., Stringfield, S., & Rachuba, L. (2000, February). *Advancing Minority High Achievement: National Trends and Promising Programs and Practices*. New York, NY: College Board. Retrieved January 11, 2006 from http://www.collegeboard.com/repository/minorityhig_3948.pdf.

This report documents national progress in advancing the achievements of elementary-aged minority children, the potential of replicable whole-school reform designs to contribute to this achievement, and the individual, classroom, and school characteristics that distinguish those minority students who attain high levels of achievement. The primary focus of this analysis is on the progress of Latino and African-American students who begin their academic careers at relatively high achievement levels. The analyses are based on data from the national study *Prospects* and its companion study of exemplary school programs, *Special Strategies*.

Clay, C. (1998). *Schooling At-Risk Native American Children: A Journey from Reservation Head Start to Public School Kindergarten*. New York, NY: Garland.

In this book, six in-depth case studies, classroom observation, and interviews with parents and teachers document changes in the social interaction patterns of Native American children between reservation Head Start programs and kindergarten. Early communication between teachers and parents, a more continuous curriculum across classroom settings, and training for parents and teachers in culturally relevant issues are identified as keys to successful mainstream education for at-risk.

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On March 16-18, 2005, several federal agencies, professional organization, and associations joined forces to hold a national colloquium to address the educational needs of Native American students. This document represents a summary of the presentations and discussions of that gathering. The Blueprint at the end of this document is under discussion and refinement, as additional input is gathered.

Government Reports

Flanagan, K., & Park, J. (2005). American Indian and Alaska Native Children: Findings from the Base Year of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) (NCES 2005-116). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved August 11, 2005, from http://nces.ed.gov/pubs2005/2005116.pdf.

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Princiotta, D., Flanagan, K.D., & Germino Hausken, E. (2006). *Fifth Grade: Findings from the Fifth Grade Follow-up of the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved July 25, 2006 from http://nces.ed.gov/pubs2006/2006038.pdf.

This report highlights children's gains in reading and mathematics over their first 6 years of school, from the start of kindergarten to the time when most of the children are completing fifth grade. It also describes children's achievement in reading, mathematics, and science at the end of fifth grade. Comparisons are made in relation to children's sex, race/ethnicity, family characteristics (e.g., family type, poverty status, primary home language), the types of schools attended (i.e., public or private), and residential and school mobility. While all children showed progress, learning gaps persisted. Certain family background variables were found to be associated with reading and mathematics achievement, for example, poverty status and mother's highest level of education. Children living in poverty in all rounds of data collection scored lower in both reading and mathematics, on average, than students who moved into and out of poverty during the same period. Children whose mothers had not completed high school scored lower than children whose mothers had a bachelor's or higher degree. Boys were more likely than girls to score in the highest third of the distribution of mathematics achievement scores. It is the fifth in a series of reports from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99.

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian education Study, Part 1: The Performance of American Indian and Alaska Native Fourth-and-Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Retrieved July 25, 2006 from http://nces.ed.gov/nationsreportcard//pdf/studies/2006463.pdf.

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students whose scores fell at or below a particular point) are also discussed. This report also provides results for groups of students defined by various background characteristics: race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, and student-reported level of parental education (grade 8 only). The comparisons are generally between the performance results of American Indian/Alaska Native students and those of students who are neither American Indian nor Alaska Native. In the section discussing state results, the comparisons are between the performance results of American Indian/Alaska Native students within each selected state and those of American Indian/Alaska Native students in each of the other selected states, and to the performance results of the national sample of American Indian/Alaska Native students. At the state level, the sample design did not permit comparisons to students who are not American Indian or Alaska Native. The report also includes sample assessment questions and examples of student responses. Appendices include information on national and state samples, school and student participation rates, participation and accommodation of students with disabilities and English language learners, and student group percentages.

U. S. Department of Education, National Center for Education Statistics (2002). *Early Childhood Longitudinal Study - Kindergarten Class of 1998-99 (ECLS-K), Psychometric Report for Kindergarten Through First Grade, NCES 2002-05*, by Ronald A. Rock and Judith M. Pollack, Educational Testing Service, Elvira Germino Hausken, project officer. Washington, DC: 2002. Retrieved May 4, 2005 from http://nces.ed.gov/pubs2002/200205.pdf.

This report documents the design, development, and psychometric characteristics of the assessment used in the Early Childhood Longitudinal Study-Kindergarten Class of 1998-99 (ECLS-K). The ECLS-K is sponsored by the U.S. Department of Education, National Center for Education Statistics. The ECLS-K was designed to assess the relationship between a child's academic and social development and a wide range of family, school, and community variables. While the ECLS-K will ultimately span kindergarten through fifth grade, this report documents the psychometric results for four time points – fall-and spring-kindergarten and fall- and spring-first grade.

U. S. Department of Education, National Center for Education Statistics (2002). *Early Estimate of Public Elementary and Secondary Education Statistics: School Year 2001-2002*, NCES 2002-311, by Lena McDowell and Frank Johnson. Washington, DC. Retrieved May, 19, 2005, from http://nces.ed.gov/pubs2002/2002311.pdf.

The early estimates system is designed to allow the National Center for Education Statistics (NCES) to publish selected key statistics during the school year in which they are reported. Forty-eight states, the District of Columbia, and two outlying areas participated in the 2001-02 "Early Estimates of Public Elementary/Secondary Education Survey." The estimates reported here were

provided by state education agencies and represent the best information on public elementary and secondary schools available to states at this stage of the school year. They are, however, subject to revision. All estimates for the two nonreporting states and the three outlying areas were calculated by NCES. (Arizona, California, Guam, Northern Marianas, and Puerto Rico did not return the completed survey form.) NCES also estimated missing data items for a number of reporting states.

U.S. Department of Health and Human Services, Administration for Children and Families (2005, May). *Head Start Impact Study: First Year Findings*. Washington, DC. Retrieved July 25, 2006 from http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/first_yr_finds/first_yr_finds.pdf.

The National Head Start Impact Study has two primary goals. The first is to determine on a national basis how Head Start affects the school readiness of children participating in the program as compared to children not enrolled in Head Start. Does Head Start improve children's cognitive development, general knowledge, approaches to learning, social and emotional development, communication skills, fine and gross motor skills, and physical well-being? In addition, how does Head Start affect the lives of the families of children enrolled in the program? The second goal of the study is to determine under which conditions Head Start works best and for which children. To meet this goal, the study will examine various factors that could affect the results of the Head Start program. These factors will include differences among children attending Head Start, differences in children's home environments, the different types of Head Start programs available (home or center-based, quality indicators such as staff ratio, curriculum, part- vs. full-day programs, one versus two years exposure), and the availability and quality of other child care and preschool programs in a particular area. The National Head Start Impact Study is a longitudinal study that involves approximately 5,000 - 6,000 three and four year old preschool children across an estimated 75 nationally representative grantee/delegate agencies in communities where there are more eligible children and families than can be served by the program.

U.S. Department of Health and Human Services, Administration for Children and Families (2005, May). *Head Start Impact Study: First Year Findings*. Washington, DC. Retrieved July 25, 2006 from http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/first_yr_finds/first_yr_finds.pdf.

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addition, how does Head Start affect the lives of the families of children enrolled in the program? The second goal of the study is to determine under which conditions Head Start works best and for which children. To meet this goal, the study will examine various factors that could affect the results of the Head Start program. These factors will include differences among children attending Head Start, differences in children's home environments, the different types of Head Start programs available (home or center-based, quality indicators such as staff ratio, curriculum, part- vs. full-day programs, one versus two years exposure), and the availability and quality of other child care and preschool programs in a particular area. The National Head Start Impact Study is a longitudinal study that involves approximately 5,000 - 6,000 three and four year old preschool children across an estimated 75 nationally representative grantee/delegate agencies in communities where there are more eligible children and families than can be served by the program.

Literature Reviews

Apthorp, H., D'Amato, E., & Richardson, A. (2003). *Effective Standards-Based Practices for Native American Students: A Review of Research Literature.* Retrieved May 4, 2005, from Mid-continent Research for Education and Learning Web site: http://www.mcrel.org/topics/productDetail.asp?productID=15.

Research and related literature were reviewed to summarize evidence on the effectiveness of different instructional practices for helping Native American students meet standards. In English language arts, 16 reports were reviewed. In mathematics, 8 reports were reviewed. Findings were mixed for the effectiveness of teaching Indigenous language and literacy first, followed by English literacy and bilingualism. In some content areas, they did not. Findings were indeterminate with regard to the effectiveness of culturally congruent practices for Native American student achievement in reading and mathematics. Promising practices were identified, such as successful collaboration among community members, teachers, researchers, and teacher education faculty for creating culturally congruent classrooms with an emphasis on developing language and thought, but casual conclusions could not be drawn about the effectiveness of these conditions for helping students meet standards. Plans for further collaborative research are presented in an appendix, and a link to the Center for Research on Education, Diversity and Excellence (CREDE) is provided to assist readers in locating related and ongoing research and reviews.

Demmert, W. (2001). *Improving Academic Performance Among Native American Students: A Review of the Research Literature.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED463917).

This literature review examines research-based information on educational approaches and programs associated with improving the academic performance of

Native American students. A search reviewed ERIC's over 8,000 documents on American Indian education, as well as master's and doctoral dissertations and other sources of research on the education of Native Americans. Selected research reports and articles were organized into the following categories: early childhood environment and experiences; Native language and cultural programs; teachers, instruction, and curriculum; community and parental influences on academic performance; student characteristics; economic and social factors; and factors leading to success in college or college completion. The status of research and major research findings are reviewed for each of these categories; brief summaries of research findings with citations are included following the review of each category. Also included are an annotated bibliography of more than 100 research reports, journal articles, and dissertations, most published after 1985; and a bibliography of 23 additional references to other literature reviews and non-Native studies.

Head Start Bureau, U.S. Department of Health and Human Services (2003, March). *A Summary of Research and Publications on Early Childhood for American Indian and Alaska Native Children*. Washington, DC: ORC Macro. Retrieved January 5, 2006 from http://www.acf.hhs.gov/programs/opre/hs/aian/reports/aian_summary/aian_sum.pdf.

This report centers on research literature while providing lessons from non-research publications as well. Information is organized in two segments: the first segment summarizes issues and observations from position papers, opinions, experiences, and syntheses; the second segment presents, in the style of an annotated bibliography, information from research studies.

Math/Science

Baker, S., Gersten, R., & Lee, D. (2002). A Synthesis of Empirical Research on Teaching Mathematics to Low-Achieving Students. *Elementary School Journal 103*(1) 51-73.

The purpose of this study was to synthesize research on the effects of interventions to improve mathematics achievement of students considered low achieving or at risk for failure. Meta-analysis techniques were used to calculate mean effect sizes for 15 studies that met inclusion criteria. Studies were coded according to five categories of mathematics interventions, and effect sizes were examined on a study-by-study basis within each of these categories. Results indicated that different types of interventions led to improvements in the mathematics difficulty, including the following: (a) providing teachers and students with data on student performance; (b) using peers as tutors or instructional guides; (c) providing clear, specific feedback to parents on their

children's mathematics success; and (d) using principles of explicit instruction in teaching math concepts and procedures.

Beck, D. (2004). Playing Games or Learning Science? An Inquiry into Navajo Children's Science Learning. *Journal of American Indian Education 43*(3), 41-55.

Consideration of the subtleties in a group of Navajo children's science learning activities provides us with some useful ways of viewing those activities. It also more clearly establishes the elements to consider in valuing or not valuing the use of these kinds of activities that the author calls "games" and other possible kinds of student inquiry during science lessons. These views allow us to go beyond generalizations such as "the students were actively engaged" or "the students cooperated well" or "the activity was hands-on" in describing students' activities and in making judgments about their value. While many educators undoubtedly already consider such perspectives in an intuitive way, articulating these constructs explicitly can help researchers, teachers, and curriculum designers use the perspectives more effectively in their research, planning, and teaching. Understanding the differences inherent in how children learn science opens up questions of the responsibilities of teachers and of a dominant society in valuing other demonstrations of learning. It also causes us to reflect on larger policy issues. This reflection leads us to questions of whether or not the pathways to science, which has traditionally been a White male enterprise, might not remain closed to those who are not schooled in the dominant society manner.

Bradley, C., & Reyes, M. (2000). *Alaska Native Elders' Contribution to Education: The Fairbanks AISES Science Camp*. Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED454001).

The Fairbanks American Indian Science and Engineering Society (AISES) Science Camp was designed for Alaska Native middle school students from 11 school districts. The camp enables students to learn from Native Elders while completing hands-on science projects; stimulates interest and confidence in mathematics, science, and engineering among Alaska Native students; provides a curriculum that integrates Alaska Native knowledge and values with Western mathematics and science; and encourages parents to support the academic pursuits of their children. Secondary camp objectives relate to students' cultural and spiritual development and the creation of a network of students interested in science education in Alaska. The academic component of the camp required students to complete a science project following the scientific method and specific guidelines for writing up the report. The cultural component required students to interact with Elders daily, consult and interview Elders about their science projects, complete various traditional projects under guidance of Elders, and learn traditional social rules of behavior. Students found that in most cases the knowledge and experience of the Elders complemented, confirmed, and surpassed the quality and depth of information found in either the library or Internet. The

grand prize winners in the Kodiak and Fairbanks AISES science fairs, which are open to all rural, middle school students in Alaska, were former participants of these science camps.

Hilberg, R., Tharp, R., & DeGeest, L. (2000). The Efficacy of CREDE's Standards-based Instruction in American Indian Mathematics Classes. *Equity & Excellence in Education 33*(2), 32-40.

This article examined the impact of a standards-based instructional method, designed by the Center for Research on Education, Diversity & Excellence (CREDE), on the achievement of at-risk American Indian 8th graders studying mathematics. Results indicated that students instructed in a manner consistent with CREDE's standards had greater achievement than students instructed with traditional methods (though results merely approached statistical significance).

Marchand, R., Pickreign, J., Howard, K. (2005). An Analysis of the Performance Gap between American Indian and Anglo Students in the New York State Fourth and Eighth Grade Mathematics Assessments. *Journal of American Indian Education 44*(2) 24-35.

This study explores differences in mathematics assessment results between American Indian students in Western New York and their Anglo peers. The sample consisted of 2,256 fourth grade students (Native=323 Anglo=1933) and 2,475 eighth grade students (Native=353 Anglo=2122). Scores from New York State's Fourth and Eighth Grade Math Assessments were examined to identify areas of mathematics that contribute to the gap in performance. Analysis of scores indicated that 58% of Native students and 75% of Anglo students were mathematically proficient on the Grade Four assessment. By eighth grade, 20% of Native students and 45% of Anglo students were mathematically proficient. In particular, 34% of Native students and 14% of Anglo students scored at the lowest level on the Grade Eight assessment and have little chance of passing the high school exam required for graduation. The greatest disparities between the two groups were in mathematical reasoning and uncertainty. Professional development for area math teachers and after school enrichment activities is recommended.

Mid-Continent Research for Education and Learning (2005, December). *Mathematics Lesson Interactions and Contexts for American Indian Students in Plains Region Schools*. Retrieved January 6, 2006 from http://www.mcrel.org/pdf/Diversity/5051RR_AmericanIndianMathInstruction.pdf

This study focuses on three different approaches to mathematics teaching and the current and potential impact on each approach in classroom practice and American Indian student achievement.

Pallascio, R., Allaire, R., Lafortune, L., Mongeau, P. & Laquerre, J. (2002). The Learning of Geometry by the Inuit. In J. Hankes & G. Fast (Eds.), *Changing the Faces of Mathematics: Perspectives on Indigenous People of North America* (pp. 57-68). Reston, VA: National Council of Teachers of Mathematics.

In a previous study, three of the authors examined the influence of children's spatial environments ontheir developments of spatial skills in a situation focusing on the manipulation of small objects and their two-dimensional representations. These observations suggested that Intuit children and children from an urban environment, inhabiting as they do dissimilar spatial environments, differed from each other in their perception and representation of the geometric properties of different objects. They differed as well in spatial skills. The authors were able to show that the spatial environment influences the development of spatial relationships. Results such as these have prompted the authors to consider the cultural context in which spatial skills develop. This chapter explores the spatial and geometric skills of young Intuits, the phenomenon of mathematical acculturation, the objectives of the research project thus conducted, the methodology employed, a synthesis of the observations made, and the main recommendations stemming from the entire research process.

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian education Study, Part 1: The Performance of American Indian and Alaska Native Fourth-and-Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Retrieved July 25, 2006 from http://nces.ed.gov/nationsreportcard//pdf/studies/2006463.pdf.

This report presents the performance results of American Indian/Alaska Native students at grades 4 and 8 on the 2005 National Assessment of Educational Progress in reading and mathematics for the nation, for regions, and for selected states. The national and regional samples include students from both public and nonpublic schools (i.e., Bureau of Indian Affairs [BIA], Department of Defense Education Activity [DoDEA], and private schools). States with relatively large populations of American Indian/Alaska Native students were selected for this study. The states whose results are included in this report (Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, and South Dakota) are the seven states with the largest proportions of American Indians and Alaska Natives as a percentage of the state's total population. The state samples included only public and BIA schools. Assessment results are described in terms of students' average scores on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: Basic, Proficient, and Advanced. National scores at selected percentiles on the scale (indicating the percentage of students whose scores fell at or below a particular point) are also discussed. This report also provides results for groups of students defined by various background characteristics: race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, and student-reported level of parental education

(grade 8 only). The comparisons are generally between the performance results of American Indian/Alaska Native students and those of students who are neither American Indian nor Alaska Native. In the section discussing state results, the comparisons are between the performance results of American Indian/Alaska Native students within each selected state and those of American Indian/Alaska Native students in each of the other selected states, and to the performance results of the national sample of American Indian/Alaska Native students. At the state level, the sample design did not permit comparisons to students who are not American Indian or Alaska Native. The report also includes sample assessment questions and examples of student responses. Appendices include information on national and state samples, school and student participation rates, participation and accommodation of students with disabilities and English language learners, and student group percentages.

Reading

Buly, M. (2005). Leaving No American Indian/Alaska Native Behind: Identifying Reading Strengths and Needs. *Journal of American Indian Education 44*(1) 28-52.

American Indian/Alaska Native (AI/AN) students are often labeled as struggling readers based on the results of large-scale standardized tests yet little empirical data about specific strengths and needs exists. In the present study the authors looked beyond high-stakes assessment to highlight reading strengths and needs for a group of fourth grade American Indian students in order to provide specific information to guide instruction. A description of skills considered basic to proficient reading is followed by an explanation of the assessment methods used. The majority of the students demonstrated fairly strong skills in phonemic awareness, vocabulary when assessed orally, and basic word identification (phonics). Reading with a rate appropriate to purpose and comprehension strategies were identified as instructional needs. Explicit instruction in the identified areas is suggested as vital to the future success of these students and may provide a starting point for the identification and instruction of other AI/AN students with similar needs.

Child Care & Early Education Research Connections (2003, September). *Promoting Language and Literacy in Early Childhood Care and Education Settings*. Washington, DC.

This literature review was designed to examine the existing research on promoting language and literacy development in early childhood care and education settings. It provides definitions of emergent literacy, summaries of important synthesis that have already been conducted, an overview of the current policy landscape, and the criteria used to select studies for review.

Gilliam, B., Gerla, J., & Wright, G. (2004). Providing Minority Parents with Relevant Literacy Activities for their Children. *Reading Improvement 41(*4), 226-243.

Since relevant research indicates that immersion in a literate environment is critical to academic success, the authors of this study designed a program, Project ROAR (Reach Out and Read), in cooperation with a predominantly Hispanic elementary school. Project ROAR was planned to help interested parents of kindergarten children learn in-home activities that would promote literacy and school success for their children. University faculty and students went to the community site and engaged in interactive after school literacy activities with both parents and children over a period of one year. Results indicate that parents are eager to help their children and, when instructed in appropriate literacy activities, can make a difference in the academic progress that their children make.

McNamara, J., Scissons, M., Dahleu, J. (2005). A Longitudinal Study of Early Identification Markers for Children At-Risk for Reading Disabilities: The Matthew Effect and the Challenge of Over-Identification. *Reading Improvement 42*(2), 80-97.

This paper describes a study evolving out of a collaboration between university researchers, special educators, classroom teachers, speech pathologists, and division-level administrators who were responding to a call from provincial administrators concerned with meeting the needs of children with reading disabilities. The primary goal of the study was to design and evaluate the efficacy of a tool that could be used in kindergarten classrooms to identify children at-risk for reading difficulties. The results of the study demonstrated that the authors could indeed reliably identify a small group of children in kindergarten who held achievement profiles that placed them in the lower ranks of readers in their class and that these children were likely to remain poor readers in grade one. Further, the results also suggest that the small group of children who were identified as requiring reading-based support in kindergarten were falling further behind their grade-level peer in grade one. This finding is consistent with what Stanovich (1986) refers to as the “Matthew Effect: - the rich are getting richer while the poor are getting poorer.

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian education Study, Part 1: The Performance of American Indian and Alaska Native Fourth-and-Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Retrieved July 25, 2006 from http://nces.ed.gov/nationsreportcard//pdf/studies/2006463.pdf.

This report presents the performance results of American Indian/Alaska Native students at grades 4 and 8 on the 2005 National Assessment of Educational Progress in reading and mathematics for the nation, for regions, and for selected

states. The national and regional samples include students from both public and nonpublic schools (i.e., Bureau of Indian Affairs [BIA], Department of Defense Education Activity [DoDEA], and private schools). States with relatively large populations of American Indian/Alaska Native students were selected for this study. The states whose results are included in this report (Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, and South Dakota) are the seven states with the largest proportions of American Indians and Alaska Natives as a percentage of the state's total population. The state samples included only public and BIA schools. Assessment results are described in terms of students' average scores on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: Basic, Proficient, and Advanced. National scores at selected percentiles on the scale (indicating the percentage of students whose scores fell at or below a particular point) are also discussed. This report also provides results for groups of students defined by various background characteristics: race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, and student-reported level of parental education (grade 8 only). The comparisons are generally between the performance results of American Indian/Alaska Native students and those of students who are neither American Indian nor Alaska Native. In the section discussing state results, the comparisons are between the performance results of American Indian/Alaska Native students within each selected state and those of American Indian/Alaska Native students in each of the other selected states, and to the performance results of the national sample of American Indian/Alaska Native students. At the state level, the sample design did not permit comparisons to students who are not American Indian or Alaska Native. The report also includes sample assessment questions and examples of student responses. Appendices include information on national and state samples, school and student participation rates, participation and accommodation of students with disabilities and English language learners, and student group percentages.

Reyhner, J. (2001). *Teaching Reading to American Indian/Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED459972).

This digest summarizes ways to help young American Indian and Alaska Native children become fluent readers. There are numerous reading intervention programs, each with its own set of claims and counter-claims. Phonics approaches are designed for standard English speakers, and students with limited English abilities end up parroting what they read without comprehension. A major criticism of basal readers and research-based reading programs is that the material is chosen for a generic American audience with few, if any, stories that relate to Indian culture. The language experience approach uses words from students' oral vocabularies, familiar stories, community oral histories, and predictable books to teach reading lessons. The whole-language approach is compatible with Native beliefs and traditional teaching methods, but its lack of structure can overwhelm teachers. Balanced approaches draw on both phonics and whole-language

methods. In balanced approaches, teachers can supplement basal readers with community and tribal reading materials. Using materials written in students' Native language improves reading skills in the Native language and English, and attitudes towards school. Parents can help their children by reading to them. Teachers should use reading materials that relate to children's lives and provide opportunities to learn new words and practice oral language in English and in their Native language.

Standards-Based Instruction

Apthorp, H., D'Amato, E., & Richardson, A. (2003). *Effective Standards-Based Practices for Native American Students: A Review of Research Literature.* Retrieved May 4, 2005, from Mid-continent Research for Education and Learning Web site: http://www.mcrel.org/topics/productDetail.asp?productID=15.

Research and related literature were reviewed to summarize evidence on the effectiveness of different instructional practices for helping Native American students meet standards. In English language arts, 16 reports were reviewed. In mathematics, 8 reports were reviewed. Findings were mixed for the effectiveness of teaching Indigenous language and literacy first, followed by English literacy and bilingualism. In some content areas, they did not. Findings were indeterminate with regard to the effectiveness of culturally congruent practices for Native American student achievement in reading and mathematics. Promising practices were identified, such as successful collaboration among community members, teachers, researchers, and teacher education faculty for creating culturally congruent classrooms with an emphasis on developing language and thought, but casual conclusions could not be drawn about the effectiveness of these conditions for helping students meet standards. Plans for further collaborative research are presented in an appendix, and a link to the Center for Research on Education, Diversity and Excellence (CREDE) is provided to assist readers in locating related and ongoing research and reviews.

Fox, S. (2001). *American Indian / Alaska Native Education and Standards-Based Reform.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED459039).

This digest summarizes potential benefits of standards-based reform and areas of concern for schools serving American Indian and Alaska Native students. Content standards may benefit Indian education by creating a more common curriculum, providing a focus for improving teaching and learning, and promoting a more holistic, active-learning sort of pedagogy. Various states have sought input from Indian educators about the appropriateness of standards for Indian students or have allowed development of culturally relevant local standards. Nevertheless, the potential benefits of standards will not be realized if the instruction that Indian students receive is inadequate or if the standards are irrelevant to Indian students.

Standards-based reform emphasizes testing what is taught. States that use performance-based assessment and multiple measures can avoid or reduce cultural bias in testing. Unfortunately, most states continue to rely on standardized, norm-referenced, or multiple-choice tests, which are thought to be biased. Basing decisions about promotion or graduation on inadequate testing measures may prove extremely harmful to Indian students. Holding schools accountable for students' learning is a plus for Indian education, but students in ineffective schools may also suffer. One recommendation is to base accountability on student and school gains rather than on comparisons with other students and schools. Federal and state governments play a crucial role in helping low-performing schools meet standards.

Hilberg, R., Tharp, R., & DeGeest, L. (2000). The Efficacy of CREDE's Standards-based Instruction in American Indian Mathematics Classes. *Equity & Excellence in Education 33*(2), 32-40.

This article examined the impact of a standards-based instructional method, designed by the Center for Research on Education, Diversity & Excellence (CREDE), on the achievement of at-risk American Indian 8th graders studying mathematics. Results indicated that students instructed in a manner consistent with CREDE's standards had greater achievement than students instructed with traditional methods (though results merely approached statistical significance).

Testing/Assessment

Fox, S. (1999). Student Assessment in Indian Education *or* What is a Roach? In K. Swisher & J. Tippeconnic (Eds.), *Next Steps: Research and Practice to Advance Indian Education* (pp. 161 - 178). Charleston, WV. (ERIC Document Reproduction Service No. ED427909).

American Indian students generally have not done well on traditional standardized tests. Such tests have been criticized because their ability to predict academic success is questionable, and they correlate with socioeconomic class, reward superficial learning, encourage classroom practices that fail to provide high-quality education, and are culture and gender biased. In contrast, authentic or performance-based assessment allows students to construct, rather than select, responses. An ongoing assessment based on observations of student behavior on tasks, performance-based assessment evaluates the learning of critical thinking skills, demonstration of applied knowledge, and performance of tasks in the real world. American Indians have historically used performance-based assessment, and the adoption of this method may provide the first fair indication of what Indian children know and can do. New performance-based methods of assessing student learning are being developed, and all schools receiving Title I funds are required to have performance-based assessment systems in place by the 2000-2001 school year. The Bureau of Indian Affairs has adopted the Learning Record,

developed in Great Britain and adapted for use in California, as the performance-based assessment system to be phased in over 3 years. Although performance-based assessment has great potential for American Indian education, Indian educators can also improve assessment by promoting the inclusion of oratory skills to balance reading skills, by ensuring culturally relevant curriculum, and by factoring in students' language and experience when judging their abilities.

National Association for the Education of Young Children (2005). *Screening and Assessment of Young English-Language Learners*. Washington, DC.

The aim of this document, which was requested by experts in the field, is to explain and expand on the meaning of "linguistically and culturally responsive"; to discuss other issues uniquely related to the screening and assessment of young English-language learners; and to make specific recommendations to increase the probability that all young English-language learners will have the benefit of appropriate, effective assessment of their learning and development. All aspects of the full position statement are important and relevant for young English-language learners, and readers of this document should first read the curriculum, assessment, and program evaluation position statement (NAEYC & NAECS/SDE 2003), bearing in mind that this document serves as a supplement to the full position statement.

National Institute of Child Health and Human Development (2005). *Improving Academic Performance among American Indian, Alaska Native, & Native Hawaiian Students: Assessment & Identification of Learning & Learning Disabilities*. Washington, DC. Retrieved January 9, 2006 from nichd.nih.gov/crmc/cdb/native_american_summary_dec05.pdf.

On March 16-18, 2005, several federal agencies, professional organization, and associations joined forces to hold a national colloquium to address the educational needs of Native American students. This document represents a summary of the presentations and discussions of that gathering. The Blueprint at the end of this document is under discussion and refinement, as additional input is gathered.

Rampey, B.D., Lutkus, A.D., & Weiner, A.W. (2006). *National Indian education Study, Part 1: The Performance of American Indian and Alaska Native Fourth-and-Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Retrieved July 25, 2006 from http://nces.ed.gov/nationsreportcard//pdf/studies/2006463.pdf.

This report presents the performance results of American Indian/Alaska Native students at grades 4 and 8 on the 2005 National Assessment of Educational Progress in reading and mathematics for the nation, for regions, and for selected states. The national and regional samples include students from both public and nonpublic schools (i.e., Bureau of Indian Affairs [BIA], Department of Defense

Education Activity [DoDEA], and private schools). States with relatively large populations of American Indian/Alaska Native students were selected for this study. The states whose results are included in this report (Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, and South Dakota) are the seven states with the largest proportions of American Indians and Alaska Natives as a percentage of the state's total population. The state samples included only public and BIA schools. Assessment results are described in terms of students' average scores on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: Basic, Proficient, and Advanced. National scores at selected percentiles on the scale (indicating the percentage of students whose scores fell at or below a particular point) are also discussed. This report also provides results for groups of students defined by various background characteristics: race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, and student-reported level of parental education (grade 8 only). The comparisons are generally between the performance results of American Indian/Alaska Native students and those of students who are neither American Indian nor Alaska Native. In the section discussing state results, the comparisons are between the performance results of American Indian/Alaska Native students within each selected state and those of American Indian/Alaska Native students in each of the other selected states, and to the performance results of the national sample of American Indian/Alaska Native students. At the state level, the sample design did not permit comparisons to students who are not American Indian or Alaska Native. The report also includes sample assessment questions and examples of student responses. Appendices include information on national and state samples, school and student participation rates, participation and accommodation of students with disabilities and English language learners, and student group percentages.

Tippeconnic, J. (2003). *The Use of Academic Achievement Tests and Measurements with American Indian and Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED482322).

This digest focuses on academic testing and American Indian and Alaska Native (AI/AN) students. Ideally, test results should be used to improve student learning. Proponents of high-stakes testing say it is needed to measure student achievement and school quality and to hold students and teachers accountable. High-stakes testing is also used to publicly compare schools and districts; to determine entrance into particular programs, schools, or colleges; as criteria for promotion or graduation; and to make decisions about resource allocation. Opponents of testing argue that current testing programs do not provide valid or reliable information, especially for low-income and minority students, and have unintended, negative consequences. Nationally, AI/AN students have scored well below White and other minority groups of students on standardized tests of reading, language, and mathematics. Testing of AI/AN students has been a concern for years, as AI/AN cultures and languages were long considered

obstacles to achievement, and the performance of White students was the benchmark for all. Standardized tests fail to consider the vast diversity of AI/AN languages and cultures, leading to serious issues regarding cultural bias, content comparability, norming of tests, and test validity. Other issues include environmental factors; student physical or emotional health; risk-taking behaviors of youth; and poorly funded, low-quality schools serving AI/AN students. Nine strategies are listed for improving test scores of special populations, including AI/AN students.

Other

Borman, G., Stringfield, S., & Rachuba, L. (2000, February). *Advancing Minority High Achievement: National Trends and Promising Programs and Practices*. New York, NY: College Board. Retrieved January 11, 2006 from http://www.collegeboard.com/repository/minorityhig_3948.pdf.

This report documents national progress in advancing the achievements of elementary-aged minority children, the potential of replicable whole-school reform designs to contribute to this achievement, and the individual, classroom, and school characteristics that distinguish those minority students who attain high levels of achievement. The primary focus of this analysis is on the progress of Latino and African-American students who begin their academic careers at relatively high achievement levels. The analyses are based on data from the national study *Prospects* and its companion study of exemplary school programs, *Special Strategies*.

Grace, C., Shores, E., Zaslow, M., Brown, B., Aufseeser, D., & Bell, L. (2006). *Rural Disparities in Baseline Data of the Early Childhood Longitudinal Study: A Chartbook*. Mississippi State: MS: National Center for Rural Early Childhood Learning Initiatives, Mississippi State University Early Childhood Institute. Retrieved July 19, 2006 from http://www.ruralec.msstate.edu/reports/ecls-frontmatter.pdf.

This report introduces the results from an analysis contrasting young children's care and development in rural and non-rural settings using baseline data from the Early Childhood Longitudinal Study birth and kindergarten cohorts.

Griffith, J. (2002). A Multilevel Analysis of the Relation of School Learning and Social Environments to Minority Achievement in Public Elementary Schools. *Elementary School Journal 102*(5), 349-366.

This study employed a sample of 25,087 students in 117 elementary schools. Using hierarchical linear modeling, relations of school and classroom level instrumental support (academic emphasis) and expressive support (communal relationships) to student academic achievement were examined. At the individual

level, student perceptions of each type of support were significantly and positively related to self-reported grade point average (GPA), with classroom expressive support having the strongest relation. At the school level, only classroom expressive support was associated with schools having higher student self-reported GPAs. All the various 2-way combinations of the types of support found in schools did not contribute significantly to school GPA. However, among schools having more socioeconomically disadvantaged students, expressive support in combination with its respective level of instrumental support (either school or classroom) was associated with higher GPAs. Additionally, school expressive support combined with classroom instrumental support was associated with smaller gaps in GPAs between minority and nonminority students. Results are discussed in relation to past explanations as to why instrumental support and, in particular, expressive support might benefit the learning of socioeconomically disadvantaged and minority children.

Hilberg, S., & Tharp, R. (2002). *Theoretical Perspectives, Research Findings, and Classroom Implications of the Learning Styles of American Indian and Alaska Native Students.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED468000).

This digest discusses two prominent definitions of learning styles, describes studies that have found differences between the learning styles of American Indian/Alaska Native students and students of other cultural groups, and presents instructional interventions stemming from learning styles research. The research literature on learning styles comes from several disciplines, contributing to the disjointed, inconsistent, and often contradictory information about what learning styles are and how they can be measured. Further, studies tend to be tied to a particular instrument. Researchers differ as to the elements of learning styles and whether they are fixed or malleable. Research based on a variety of theoretical frameworks suggests that American Indian and Alaska Native students show some tendency toward (1) a global, or holistic, style of organizing information; (2) a visual style of mentally representing information in thinking; (3) a preference for a more reflective style in processing information; and (4) a preference for a collaborative approach to task completion. Research supporting each of these points is briefly discussed, followed by studies showing the effects of related instructional strategies on academic achievement and student engagement.

Karoly, L, Kilburn, M., & Cannon, J. (2005). *Early Childhood Interventions: Proven Results, Future Promise.* Santa Monica, CA: RAND Corporation. Retrieved August 18, 2006 from http://www.rand.org/pubs/monographs/2005/RAND_MG341.pdf.

This report is a review and synthesis of current research that addresses the potential for various forms of early childhood intervention to improve outcomes for participating children and their families. The authors consider the potential

consequences of not investing additional resources in the lives of children, the range of early intervention programs, the demonstrated benefits of interventions with high-quality evaluations, the features associated with successful programs, and the returns to society associated with investing early in the lives of disadvantaged children. Their findings indicate that a body of sound research exists that can guide resource allocation decisions. This evidence base sheds light on the types of programs that have been demonstrated to be effective, the features associated with effective programs, and the potential for returns to society that exceed the resources invested in program delivery.

Roberts, L., Dean, E., & Holland, M. (2005). Contemporary American Indian Cultures in Children's Picture Books. *Beyond the Journal*. Retrieved January 6, 2006 from http://www.journal.naeyc.org/btj/200511/Roberts1105BTJ.pdf.

This article discusses the need for early education teachers to choose children's books that portray accurate views of contemporary American Indian life. The authors provide guidelines and a list of recommended books.

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